SYSTEM CHECKS - INTERFEROMETER of 405B

1) System warm up time
2) Ready light "ON" time and Bias and signal at this time.
3) Bias and signal 15 min. after ready light is on
4) Tank Temperature - record temperature cycle time (heater)
5) Bias swing from heater off to heater on,
6) Drift Compensator range and operation.
7) ~~Effect of machine off and on in~~ warm up time after power off for ones, 10, and 30 min. steps.
8) Repeatability at ready light on time, at 12:00, at 2:00, and 4:30. Bias and signal at this time. Fill out standard sheet.
9) Any error greater than 5 counts see Eng. immediately

405

1) Check range 4-1/4" per (8) above
2) Focus over range X and Y
3) Pointing Accuracy
4) Console check vac/signal spot, large spot, color filters, etc.

per standard sheet

OPERATING PROCEDURE

Recommended Schedule

Daily, After Turn On

1. Turn Power On

2. Allow system to warm up for approximately 45 minutes to one hour, (and when the ready light is on).

3. To set Automatic Compensator circuit on, the following procedure is to be followed:

A. Set X Axis:

1. Push X axis drive to the "Left" until the limit switch stop motion.

2. Put on X auto-compensator switch.

3. Push X drive switch to "Right" for approximately 1" (approximately 20 seconds) and immediately reverse back to the "Left" limit.

4. Switch off X axis auto-compensator switch when table is still coasting close or at the limit of travel (Left).

B. Set Y Axis:

1. Push Y axis drive to the "In" until the limit switch stop motion.

2. Put on Y auto-compensator switch.

3. Push Y drive switch to "Out" for approximately 1" (approximately 20 seconds) and immediates reverse back to the "In" limit.

4. Switch off Y axis auto-compensator switch when table is still coasting close or at the limit or travel (In).

4. System is now ready for use.

CHECK PROCEDURE

(ONCE/WEEK)

First step - per daily check list

2. Check ~~fringe~~ temperature - should be (roughly 95°-115°F) (depending on environment)

3. Check water level by removing cover and observing water level, top up if necessary.

4. X Axis by voltage level checks. Table position to be within ½" of "Left" or "IN" position during the following

Place D.C. Meter bias

A _____ 8V ± .5V

B _____ " " " "

C _____ " " " "

If any of these is not in specification, see adjustment procedure; if OK continue the level check..

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Check [ ] 1 _____ 10.5 ± 1.0 V

2 _____ 10.5 ± 1.0 V

5. Repeat 4) for Y axis

6. Check repeatability

a) Place grid on platen

b) Apply vacuum

c. Set machine to center of travel with index mark of grid at the center

d) Zero X and Y counters

e) Traverse to one edge 2 1/8" from center and go around table as indicated. All paths 2 1/8" from center.

f) Return to center index mark.

g) Read counters - both X and Y should read zero $\pm$ 8 counts.

ADJUSTMENT PROCEDURE (Once/week if required, or bi-weekly check)

1. If checks showed that ~~certain~~ any of phases A, B, C, and/or the Schmidts are out of tolerance, ~~follow~~ go through the following adjustment procedure:

2. Read and record biases with VOM and signal peak to peak with oscilloscope. Run motor or rotate handwheel . Table must ~~run~~ remain within 1/~~2~~" of IN position of Y and "left" position of X.

X Axis

	Signal	Bias
A		
B		
C		
Should Be	1.8V ± 0.2V	8V ± 0.1V

Y Axis

Same as X
A
B
C

Same as X

3. Operate one axis at a time.

A. Adjust Signal on each channel to 1.8 ± 0.2 ~~watts~~ Volts.
If any potentiometer goes out of range, adjust them.
High voltage common potentiometer on the Digitizer for front

B. Adjust biases to 8.0 ± 0.1 ~~watts~~ Volts. If any potentiometer goes out of range, adjust them. High voltage common potentiometer on the Digitizer for Travel. high voltage common pots on the digitizer front panel

~~After~~ If this is necessary, the signal ~~pads~~ pots and bias will require re-adjustment.

C. Unplug P114 from PC card which removes Automatic Compensator. Adjust front and rear Schmidt triggers to 10.5 ± 0.2 volts using a VOM

D. Adjust Auto Drift Compensator. Plug VOM into test jack on Auto Compensator Assembly and adjust R A 12.0 V. Repeat from Test point B and R_____.

E. Replug pendant cable from card.

4. Repeat for other axis if necessary.

MEMORANDUM FOR:

Received from

STATINTL

21 Sept 1967

(DATE)

FORM NO. 101 REPLACES FORM 10-101
1 AUG 54 WHICH MAY BE USED. (47)

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